AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A [[M]]method for measuring a measurement object having at least one reference structure for defining an object-fixed object coordinate system, with the aid of a measuring system comprising at least one sensor system for recording a contour of the measurement object in a measurement coordinate system, the method comprising the following steps:

positioning the measurement object in a measurement position in the coverage range of the senor system[[,]];

establishing the position of the object coordinate system by means of the reference structure[[,]];

linking the object coordinate system with the measurement coordinate system[[,]]

rotating the sensor system about a rotation axis relative to the measurement object for determining contour data[[,]]; and

processing the contour data, whilst taking account of the position of the object coordinate system in an ~~elevation~~ evaluation unit.

2. (Previously presented) Method according to claim 1, wherein during the measurement, the measurement object is so fixed by a centering device that accessibility to the reference structure is not impeded.

3. (Previously presented) Method according to claim 2, wherein the measurement object is fixed in the measurement position in such a way that the reference structure is accessible for establishing the measurement object position, the measurement object being substantially rotation-like with respect to a measurement object axis, wherein the reference structure is positioned within the outer contour of the measurement object in the vicinity of the measurement object axis and a centering device for centering the measurement object acts on the outer contour of the measurement object.

4. (Previously presented) Method according to claim 2, wherein a reference device for establishing the position of the object coordinate system scans the substantially freely acessible reference structure.

5. (Previously presented) Method according to claim 4, wherein the reference device scans in noncontacting manner the substantially freely accessible reference structure.

6. (Currently amended) Method according to claim 1, wherein a reference device performs a mechanical orientation of the measurement object by means of the reference system for establishing the position of the object coordiante system ~~and in particular the reference structure is measured~~.

7. (Previously presented) Method according to claim 1, wherein a shape and/or position variation of at least one measurement object surface portion provided for engagement on

an object surface, oriented substantially orthogonally to a rotation axis of the sensor system and formed on the measurement object is determined by means of the sensor system and/or reference device.

8. (Currently amended) Method according to claim 1, wherein a marking is made on the measurement object ~~more particualry~~ defining a characterisitc measurement point by a marking device connected to the sensor system.

9. (Currently amended) Method according to claim 1, wherein the measurement object is conveyed substantially linearly between an insertion opening and a discharge opening of the measurement system~~, preferably perpendicular to the sensor system rotation axis~~.

10. (Previously presented) Method according to claim 1, wherein measurement data of the sensor system are linked with measurement data of the reference device for determining wall thicknesses.

11. (Original) Device for measuring a measurement object having at least one reference structure for defining an object-fixed object coordinate system having a measuring system with at least one sensor system for recording a contour of the measurement object in a measurement coordinate system and a reference device for establishing the position of the object coordinate system with the aid of the reference structure, the sensor system being mounted in rotary manner relative to the measurement object.

12. (Previously presented) Device according to claim 11, wherein there is a centering device for a positioning and/or fixing of the measurement object in the measurement position before and/or during measurement.

13. (Previously presented) Device according to claim 11, wherein the reference device is set up for a noncontacting reference structure scanning.

14. (Previously presented) Device according to claim 11, wherein the reference device is constructed for mechanically centering the measurement object with the aid of the reference structure.

15. (Previously presented) Device according to claim 11, wherein the sensor system and/or reference device is provided for determining the flatness and/or orientation of a measurement object surface portion provided on the measurement object, oriented substantially orthogonally to a rotation axis of the sensor system and constructed for engagement on an object surface.

16. (Previously presented) Device according to claim 11, wherein a marking device for making a marking on the measurement object is provided on the sensor system and/or reference device.

17. (Previously presented) Device according to claim 11, wherein the reference device is arranged in rotary manner substantially coaxially to a rotation axis of the sensor system.

18. (Previously presented) Device according to claim 11, wherein integration takes place into a conveying device, particularly a linear conveying system.

19. (Previously presented) Device according to claim 11, wherein there are size determination means for a basic positioning of the sensor system and/or reference device.

20. (New) Method according to claim 6, wherein the reference structure is measured.

21. (New) Method according to claim 9, wherein the measurement object is conveyed substantially perpendicular to the sensor system rotation axis.